

BIOGAS SERIES

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KOMPRESSOREN



About Us

Founded in Germany in 2005, Hertz Kompressoren combines German engineering principles with the more than 60 years of industrial expertise and manufacturing heritage of Dalgakıran, whose journey began in Istanbul in 1965. As Dalgakıran's premium brand, Hertz develops advanced compressed air and gas compressor solutions designed to meet the evolving demands of industries worldwide. Its portfolio spans rotary screw and oil-free technologies as well as high-pressure gas compressor systems for applications such as CNG, hydrogen, biogas, biomethane and other process gases. With a strong focus on engineering excellence, reliability, efficiency and continuous development, Hertz delivers high-quality solutions across a wide range of industrial applications while continuing to support the industries of today and building the future.



900+
sales and after-sales
service locations worldwide



Kiev, Ukraine
Factory



Kocaeli, Türkiye
HQ - Factory

Reliable Gas and Process Solutions



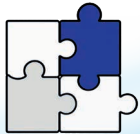
Engineering Excellence & Technology

R&D and Test Center



Air and Gas Compressors

60+ Years of Experience



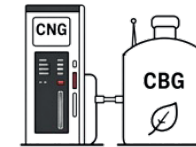
Customized Solutions

250+ Gas Compressors in Operation



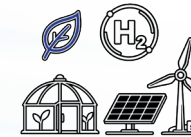
Global Service Network

900+ Sales and Service Locations



Wide Product Range

Reciprocating and Screw Compressors, Gas-Sets, Mobile and Drying Solutions



Renewable Energy Solutions

Biogas, Biomethane, Hydrogen, Carbon Dioxide, etc.



ISO
9001:2015



ISO
14001



ISO
18001



ATEX Directive
2014/34/EU



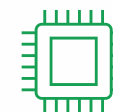
PED Directive
2014/68/EU



API 618 & 619
Compliant Compressors



Machinery Directive
2006/42/EC

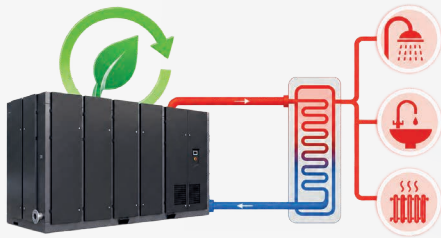


Electromagnetic Compatibility Directive
2014/30/EU

Key Solutions

Up to **35%**
energy saving

Energy Saving with Heat Recovery



In screw compressors, up to 75% of the electrical energy consumed can be recovered as heat. This recovered energy can be reused for process heating or hot water, reducing energy consumption and operating costs.

Energy Saving with VSD Technology



VSD technology automatically adjusts compressor speed to match real-time gas demand, helping reduce unnecessary energy consumption. By operating only at the required capacity, it improves efficiency, stabilizes system pressure and reduces overall energy demand.

Smart Control



Advanced controller technology enables centralized management of key compressor functions, with real-time monitoring, multi-compressor control and remote access. Intelligent automation supports stable, efficient and reliable operation across the entire system.

SmartBOX - Flexible Compressor Room



Containerized compressor rooms offer a compact, turnkey solution with integrated equipment and reliable operation in harsh conditions. Flexible configurations, VSD options and remote monitoring support efficient and easy system management.

Special Components for Biogas

Raw biogas may contain various components and exhibit variable properties that can make operating conditions challenging. Therefore, biogas applications require compressor solutions specifically designed for these operating conditions.



Hydrogen Sulfide

Corrosive effect



Water

Humidity/Condensation



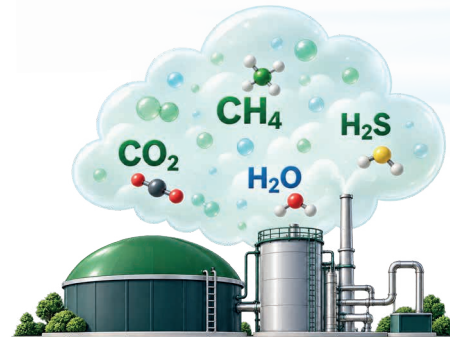
Carbon Dioxide

Corrosive process conditions



Methane

Variable gas properties



Variable Flow

Fluctuating process demand

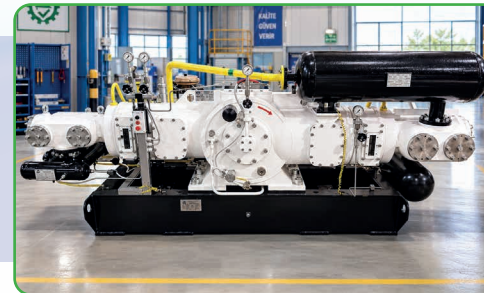
Compressors for Biogas Applications



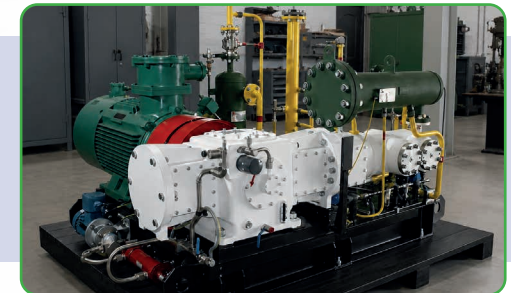
Biogas Upgrading
Compressors



High Pressure Bio-CNG
Compressors



Grid Injection
Compressors



CO₂ Recovery
Compressors

Reciprocating Gas Compressors

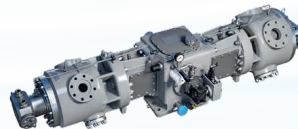
- **Oil-lubricated** and **oil-free** options
- **Low inlet pressure** capability
- **Diesel, electric,** or **gas engine** drive options
- **Original** concept design
- **Horizontal** or **vertical** layout options
- **Low vibration** with opposed cylinder design
- **Air- or water-cooled** configuration
- **Designed** for **heavy-duty** applications
- **Acoustic** enclosure
- **Short delivery** time
- **Custom engineering** for gas processes
- **Wide range** of capacity and power options
- **Inlet pressure** from **atmospheric to 250 bar**
- **Reliable** performance up to 400 bar
- **Maximum** capacity of **10.000 m³/h**
- **Operation** from **-40°C to +40°C**

1.5SGI



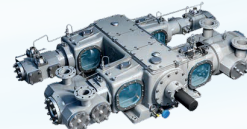
No. of Stages	2
Inlet Pressure	3-85 bar
Outlet Press.	400 bar
Power	37-75 kW
Capacity	150-1.170 m ³ /h

3SGI



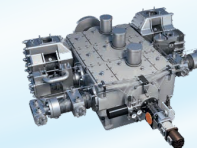
No. of Stages	2
Inlet Pressure	1,5-100 bar
Outlet Press.	400 bar
Power	37-160 kW
Capacity	250-1.500 m ³ /h

3SGH



No. of Stages	4
Inlet Pressure	0,3-1,5 bar
Outlet Press.	400 bar
Power	132-250 kW
Capacity	270-930 m ³ /h

3SGHI



No. of Stages	6
Inlet Pressure	Atmospheric
Outlet Press.	250 bar
Power	90 kW
Capacity	500 m ³ /h

6SGI



No. of Stages	2
Inlet Pressure	1-44 bar
Outlet Press.	250 bar
Power	160-315 kW
Capacity	470-2.500 m ³ /h

10SGI



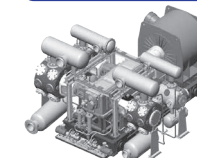
No. of Stages	2
Inlet Pressure	3 bar
Outlet Press.	250 bar
Power	160-600 kW
Capacity	1.000 m ³ /h

10SGH



No. of Stages	4
Inlet Pressure	Atmospheric
Outlet Press.	300 bar
Power	250-900 kW
Capacity	5.000 m ³ /h

16SGH



No. of Stages	4
Inlet Pressure	Atmospheric
Outlet Press.	320 bar
Power	500-1.900 kW
Capacity	10.000 m ³ /h

Rotary Screw Gas Compressors

- High-efficiency compression with oil-injected and oil-free screw options
- Controlled and highly efficient operation
- Highly customizable solutions with a wide range of options
- Design suitable for different applications
- Robust design for various climate conditions
- Gas quality suitable for the upgrading process through integrated conditioning
- Capacity control adaptable to varying gas flow rates
- Stable pressure and gas flow suitable for the upgrading process
- Materials and sealing systems compatible with gas composition
- Effective cooling, condensate and gas conditioning management
- Smart control and process safety options
- Adaptable design for different upgrading technologies
- Profinet - Modbus TCP/IP



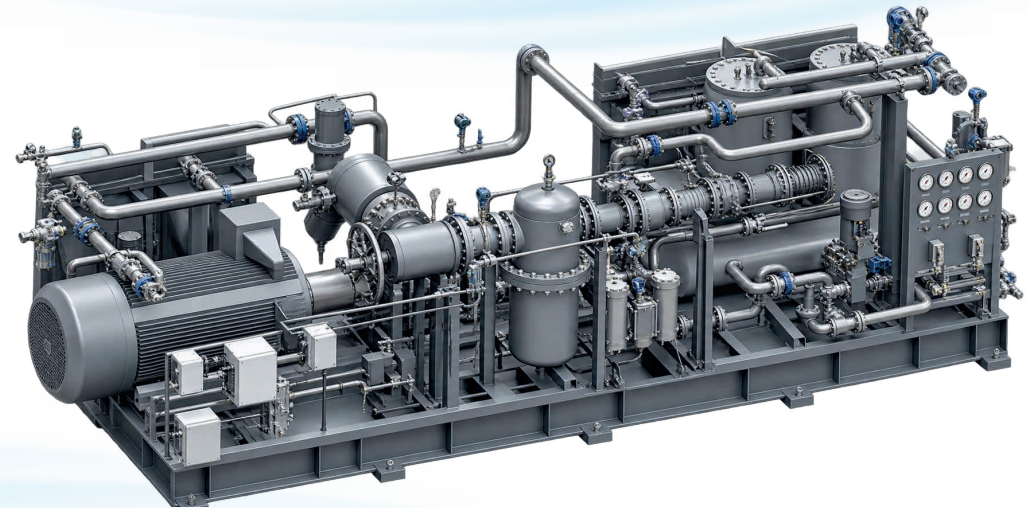
12-6.300
m³/h



11-670
kW



4-20
bar



Options

Structural

Canopy
Open Skid
Enclosed Skid
Container
Acoustic Insulation
Piping
Stainless Steel
Carbon Steel
Expansion Vessel

Efficiency

Heat Exchanger Options
Water-to-Oil
Water-to-Gas
Water Cooling
Dual-Motor Configuration (>50% TD)
Two-Stage Screw Compressor
Heat Recovery
VSD Technology

Gas Conditioning

Filtration (Pre-Conditioning)
Standard and Fine Filtration
Activated Carbon Filtration
VOC (Volatile Organic Compounds)/Siloxane Separator
Inlet Water Separator (Pre-Conditioning)
Gas Temperature Control (Aftercooler/Reheater)

Design

Atex Zone 0/1/2
Exproof
Operating in low temperatures

From Engineering to the Field



Needs Analysis

Process conditions, capacity, pressure, and site requirements are determined.



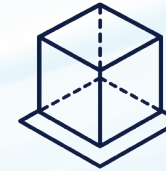
Gas Analysis

Gas composition, temperature, humidity, and process characteristics are evaluated.



System Design

The appropriate compressor type, stage configuration, and equipment are selected for the application.



3D Modeling, Engineering & Documentation

Skid, piping, and equipment layout are optimized through 3D modeling.



Manufacturing & Integration

The compressor and system components are manufactured and integrated onto the skid.



FAT – Factory Acceptance Test

The system undergoes performance, safety, and functional testing prior to shipment.



Shipment

Packaging and logistics planning are carried out in accordance with project requirements.



Commissioning

Site installation, inspections, start-up, and performance verification are carried out.



Service & After-Sales Support

System continuity is ensured through periodic maintenance, spare parts, and technical service support.

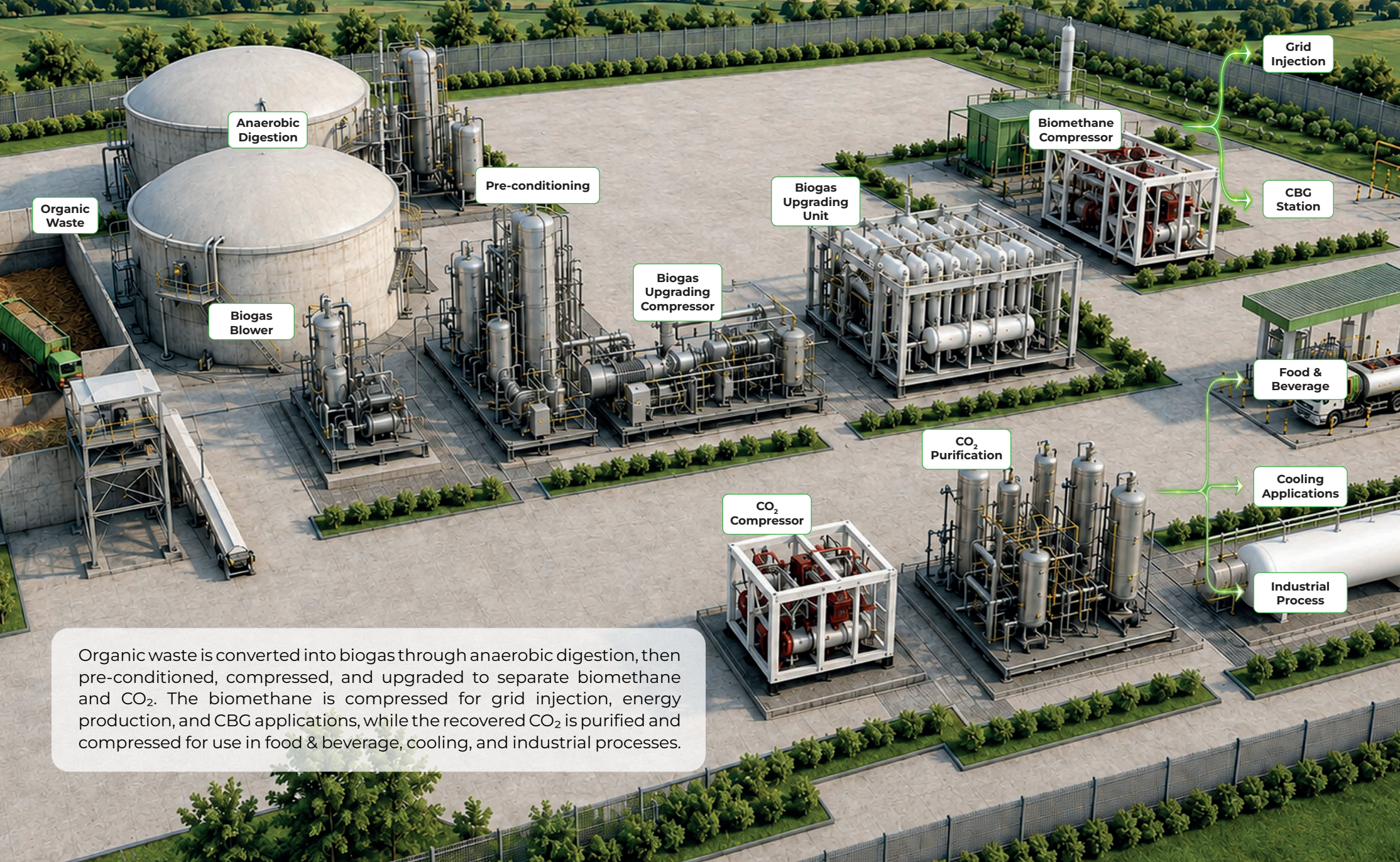


APPLICATIONS

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Biogas



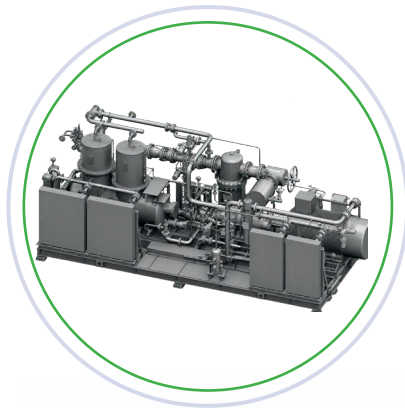
Organic waste is converted into biogas through anaerobic digestion, then pre-conditioned, compressed, and upgraded to separate biomethane and CO₂. The biomethane is compressed for grid injection, energy production, and CBG applications, while the recovered CO₂ is purified and compressed for use in food & beverage, cooling, and industrial processes.

Biogas Upgrading

The compressor prepares biogas for the upgrading process by delivering the stable pressure and flow required by the technology. Depending on the upgrading method, it supports separation efficiency, maintains process stability and helps the resulting biomethane reach the pressure required for its next application.



Raw Biogas

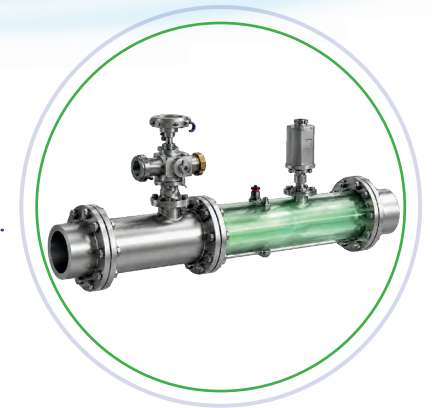


Compressor

Powering efficient biogas upgrading and delivering biomethane ready for use.



Upgrading



Biomethane



Provides the pressure differential required for separation.

Membrane Separation



It provides a stable pressurized gas supply for the adsorption cycle.

V-PSA



It provides the pressure required for the dissolution of CO₂.

Water Scrubbing



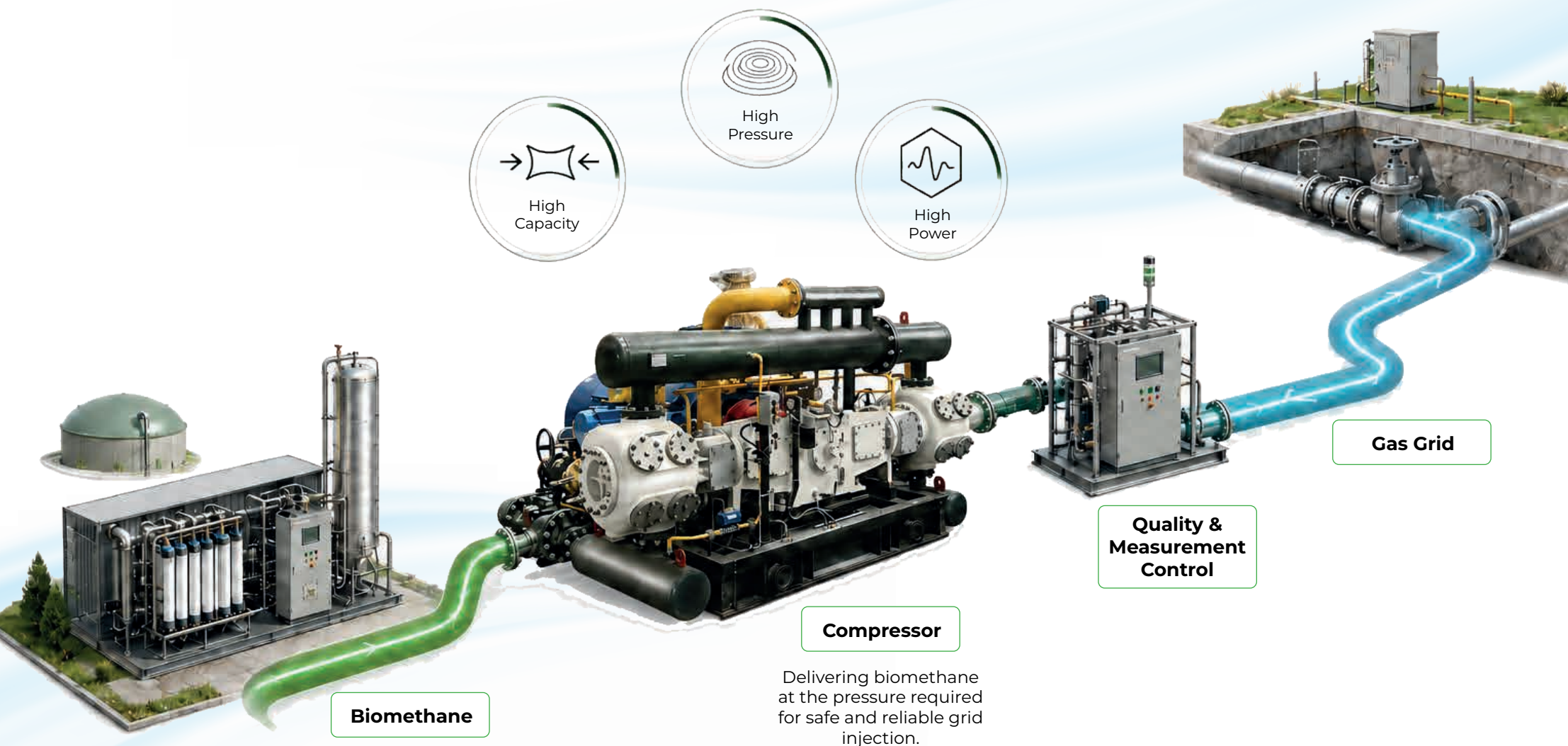
Supports process and downstream pressure.

Amine Scrubbing

Biomethane Grid Injection

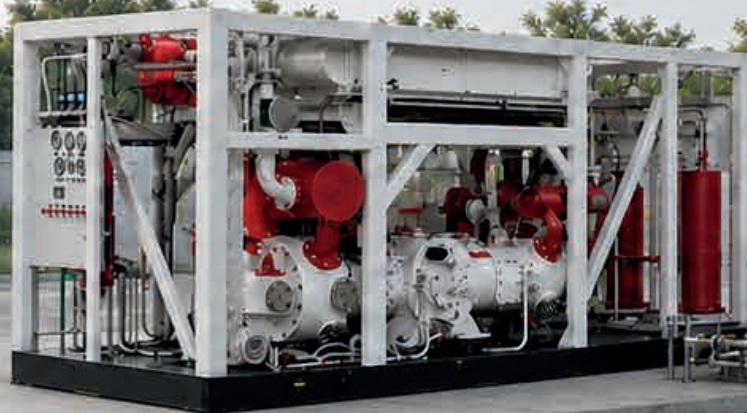
The compressor brings biomethane to the operating conditions required for grid injection. By providing the required pressure level and a continuous gas flow, it supports the stable and reliable transfer of quality-controlled gas into the natural gas grid.

- Biomethane produced after upgrading is conditioned to meet grid requirements.
- The compressor raises the gas to the required pressure, supporting the grid injection process.
- Following quality control, the biomethane is injected into the natural gas grid.



Bio-CNG Station

In Bio-CNG stations, biomethane is compressed to high pressure for storage and then supplied to vehicles as fuel through a dispenser. This transforms renewable gas into a low-emission, sustainable mobility solution for the transport sector.



Compressor

Raises biomethane to the high pressure required for vehicle refuelling.



Storage

Feeds the storage cascade efficiently and continuously.



Operational Continuity

Ensures stable and efficient station operation.



Reliable Refuelling

Supports uninterrupted, reliable vehicle refuelling.



CO₂ Recovery

CO₂ separated from biogas during upgrading can be recovered, conditioned and prepared for reuse instead of being released into the atmosphere. This creates a second valuable product alongside biomethane production.

Recovery

CO₂ separated during the upgrading process is collected.

Compressor

CO₂ is raised to the pressure required for subsequent processes.

Purification

Moisture and unwanted components are removed.

Utilisation

Food & Beverage



Cooling Applications



Industrial Processes



Virtual Pipeline

Purified biogas converted into biomethane can be stored at high pressure and transported to areas without pipeline access. This enables biomethane to be utilised at different consumption points beyond the production facility, providing a renewable energy transport solution where pipelines are unavailable.

Compressor

Biomethane is compressed for storage and transportation.



Storage

The gas is stored in suitable cylinder or tank systems.



Transportation

It is transported to different locations using mobile tanker systems.



Utilisation

Used at factories, energy facilities, CBG stations and grid injection points.



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